Release notes for ENDF/B Development e-070_Yb_000 evaluation

October 13, 2016

- `fudge-4.0` Warnings:

  1. Mislabled emitted particle
     Reading ENDF file: ../e-070_Yb_000.endf (Error # 0): ZAP messed up

     `WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0`

  2. FIXME: Generic fudge unimplemented message
     reaction label 1: e- + Yb + gamma [bremsstrahlung] / Product: e- (Error # 0): Generic unimp (c)

     `WARNING: Checking not yet implemented for energyLoss type data`

  3. FIXME: Generic fudge unimplemented message
     reaction label 2: e- + Yb [excitation] / Product: e- (Error # 0): Generic unimp (c)

     `WARNING: Checking not yet implemented for energyLoss type data`

- `fudge-4.0` Errors:

  1. Calculated and tabulated thresholds don't agree
     reaction label 0: e- + Yb [large angle Coulomb scattering] / Cross section: (Error # 0): Threshold mismatch

     `WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!`

  2. Calculated and tabulated thresholds don't agree
     reaction label 1: e- + Yb + gamma [bremsstrahlung] / Cross section: (Error # 0): Threshold mismatch

     `WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!`

  3. Calculated and tabulated thresholds don't agree
     reaction label 2: e- + Yb [excitation] / Cross section: (Error # 0): Threshold mismatch

     `WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10. eV!`

  4. Calculated and tabulated thresholds don't agree
     reaction label 3: e- + e- + Yb1s1/2 / Cross section: (Error # 0): Threshold mismatch

     `WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 61441. eV!`

  5. Calculated and tabulated thresholds don't agree
     reaction label 4: e- + e- + Yb2s1/2 / Cross section: (Error # 0): Threshold mismatch

     `WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 10454. eV!`

  6. Calculated and tabulated thresholds don't agree
     reaction label 5: e- + e- + Yb2p1/2 / Cross section: (Error # 0): Threshold mismatch

     `WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 9992.6 eV!`

  7. Calculated and tabulated thresholds don't agree
     reaction label 6: e- + e- + Yb2p3/2 / Cross section: (Error # 0): Threshold mismatch

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 8933.799999999999 eV!
```

8. Calculated and tabulated thresholds don't agree
   reaction label 7: e- + e- + Yb3s1/2 / Cross section: (Error # 0): Threshold mismatch

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2368.1 eV!
```

9. Calculated and tabulated thresholds don't agree
   reaction label 8: e- + e- + Yb3p1/2 / Cross section: (Error # 0): Threshold mismatch

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 2160.7 eV!
```

10. Calculated and tabulated thresholds don't agree
    reaction label 9: e- + e- + Yb3p3/2 / Cross section: (Error # 0): Threshold mismatch

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1935.2 eV!
```

11. Calculated and tabulated thresholds don't agree
    reaction label 10: e- + e- + Yb3d3/2 / Cross section: (Error # 0): Threshold mismatch

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1578.1 eV!
```

12. Calculated and tabulated thresholds don't agree
    reaction label 11: e- + e- + Yb3d5/2 / Cross section: (Error # 0): Threshold mismatch

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 1528.5 eV!
```

13. Calculated and tabulated thresholds don't agree
    reaction label 12: e- + e- + Yb4s1/2 / Cross section: (Error # 0): Threshold mismatch

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 471. eV!
```

14. Calculated and tabulated thresholds don't agree
    reaction label 13: e- + e- + Yb4p1/2 / Cross section: (Error # 0): Threshold mismatch

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 386.04 eV!
```

15. Calculated and tabulated thresholds don't agree
    reaction label 14: e- + e- + Yb4p3/2 / Cross section: (Error # 0): Threshold mismatch

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 334.92 eV!
```

16. Calculated and tabulated thresholds don't agree
    reaction label 15: e- + e- + Yb4d3/2 / Cross section: (Error # 0): Threshold mismatch

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 193.73 eV!
```

17. Calculated and tabulated thresholds don't agree
    reaction label 16: e- + e- + Yb4d5/2 / Cross section: (Error # 0): Threshold mismatch

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 184.44 eV!
```

18. Calculated and tabulated thresholds don't agree
    reaction label 17: e- + e- + Yb4f5/2 / Cross section: (Error # 0): Threshold mismatch

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 11.09 eV!
```

19. Calculated and tabulated thresholds don't agree
reaction label 18: e- + e- + Yb4f7/2 / Cross section: (Error # 0): Threshold mismatch

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 9.67 eV!
```

20. Calculated and tabulated thresholds don't agree
reaction label 19: e- + e- + Yb5s1/2 / Cross section: (Error # 0): Threshold mismatch

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 59.9 eV!
```

21. Calculated and tabulated thresholds don't agree
reaction label 20: e- + e- + Yb5p1/2 / Cross section: (Error # 0): Threshold mismatch

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 36.44 eV!
```

22. Calculated and tabulated thresholds don't agree
reaction label 21: e- + e- + Yb5p3/2 / Cross section: (Error # 0): Threshold mismatch

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 30.01 eV!
```

23. Calculated and tabulated thresholds don't agree
reaction label 22: e- + e- + Yb6s1/2 / Cross section: (Error # 0): Threshold mismatch

```
WARNING: Calculated and tabulated thresholds disagree: 1.e-5 eV vs 5.61 eV!
```

- `xsectplotter` Warnings:

  1. Mislabled emitted particle
     Error: ZAP messed up

     ```
     stderr while processing crossSection

         WARNING: photon most likely labelled as an electron (ZAP = 11), converting to ZAP = 0
     ... [4 more lines]
     ```